

REQUEST FOR PROPOSAL

Addendum # 5



Department Of Executive Services
Finance and Business Operations Division
Procurement and Contract Services Section
206-684-1681 TTY RELAY: 711

ADDENDUM DATE: September 16, 2004

RFP Title: On-Board Systems / Communication Center System

RFP Number: 04-001PR

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Q#	Subsection	QUESTION	ANSWER
Part C, SECTION 1.B. Business Requirements			
1.	Part C, 1.B.4.6.2.1 Page 28	Since the LonWorks VAN will be replaced by a new VAN, does the Tag Unit Interface provide other functionality than the Interface and protocol conversion between LonWorks VAN and the RS232 of the Amtech RF tag?	<p>CLARIFICATION:</p> <p>The TIU is an adaptor that converts LonWorks data into RS232 TTL provides the 12v power source for the tag. The TIU may be eliminated is the VLU has a RS232 TTL port and can provide 12 volt power.</p> <p>ADD: to end of paragraph [page 28]</p> <p>The TIU provides the interface and protocol conversion between LonWorks and RS232 TTL and 12 volt power to the Amtech RF Tag.</p>
2.	Part C, 1.B.4.6.2.1 Page 28 and Part C 2.B.4.1.16 RV 16 Page 332-336	Please provide interface and protocol specification of the RS232 interface of the Amtech RF tag.	<p>ADD: to the end of 2.B.4.1.16 5.2 Technical Specifications [page 335]</p> <p>The Tag is a Transcore model AT5704. Transcore is now the company name, but they still refer to the tag as an "Amtech" tag. Information on this tag can be found from the manufacturer's website at the following link: http://www.transcore.com/product_profiles/411352.pdf</p> <p>The interface/spec is 4-wire serial, half-duplex, asynchronous TTL.</p>
Part C, SECTION 3.A. Level 1 Technical Requirements			
3.	Part C, 2.A.1.2.1.2. 1 Page 65	Is there a description of the TED's data structure available?	<p>CLARIFICATION:</p> <p>The data structures will be available to the awarded contractor.</p>
4.	Part C, 2.A.1.2.1.2. 1 Page 65 and Part C, 2.A.1.2.1.2. 2 c Page 67	Is it sufficient that the Base servers design has Import/Export interfaces to TCIP/XML instead of the internal representation being TCIP?	<p>CLARIFICATION:</p> <p>The internal representation of files inside the database will be in TCIP-XML or XML Structures.</p>
5.	Part C, 2.A.1.2.1.2. 2 c Page 67	<p>Please explain in more detail the distinction between</p> <ul style="list-style-type: none"> - Base server data storage internal - Base server relational database 	<p>CLARIFICATION:</p> <p>There is really no distinction between them. Only that you are able to have both a database of stored data and raw output log files on the server.</p>

6.	Part C, 2.A.1.2.1.2.2.c Page 67	Assuming that the relational database contains the data import from TED for the landing pad: would it be sufficient if the database is object oriented; but access is available through SQL based tools?	CLARIFICATION: The database at a minimum will have to be accessible through SQL and XQL tools stored in XML data structures.
7.	Part C, 2.A.1.5.4.2 Page 95	Are the sensor signals which have to be read by the AVM Multiplexor analog or digital signals?	CLARIFICATION: Both.
8.	Part C, 2.A.1.5.4.2 Page 95	Does AVM measure results have to be submitted as measured value or ok/not ok status	CLARIFICATION: Both, as appropriate to the condition being monitored.
9.	Part C, 2.A.1.5.4.2 Page 95	What are the signal's voltage levels?	CLARIFICATION: It will vary depending on the condition being monitored, i.e. 12v or 24v.
10.	Part C, 2.A.1.5.4.2 Page 95	Is the type of sensor signal and the assignment "multiplexor input number" to "signal name" also different within one vehicle type?	ADD: a fifth bullet to the list, "The AVM hardware shall include the following:" [page 95] <ul style="list-style-type: none"> Each vehicle type in the AVM equipped fleets will have the identical configuration of sensors and associated input numbers and signal names.
11.	Part C, 2.A.1.5.4.5. Page 96 and Part C, 1.C.7.3 Page 62	Chapter 2.A.1.5.4.5 says, the OBS design shall also address the WLAN requirements for the live video link for Transit police. In 1.C.7.3, the wireless connection to the police is not connected to the rest of the Ethernet system. How does the OBS system interact with the wireless connection to the Transit police?	ADD: to end of paragraph [page 96] The OBS/CCS Contractor will alter the on-board architecture to integrate the Video Link into the system. The VLU will act as a router to control access to other subsystems. The police system has a Wireless Access point in the Car, which assigns an address to the Wireless LAN Device. The VLU will be required to route the request and video to and from the video system.
12.	Part C, 2.A.1.5.4.10 Page 97	What type of PA Switch is currently installed?	CLARIFICATION: The proposed design may either utilize the existing manual switch or replace it with digital switching via DDU control. ADD: to end of Subsection 1.B.4.3.1.2. [page 25] c. <u>PA Switch</u> – the existing PA switch is a double pole, single throw switch that is mounted in the driver's cockpit on the panel to the left of the seat. There are two types of switches depending on the vehicle type. One has two positions that enable the Operator to toggle between the inside and outside speakers so that they can send audio to make an announcement to passenger on-board the vehicle or to make an announcement over the outside speaker. The second alternative is the same type of switch with three positions: inside, outside or both inside and outside.
13.	Part C, 2.A.1.6.1.3. Page 100 and Part C, 2.A.1.6.4.2.3. Page 108	What kind of connectors do you use for Ethernet (Init does not recommend using RJ45 connectors in vehicle environment)?	CLARIFICATION: The Ethernet standard calls for RJ45, and a hardened RJ45 connection is required. Vendors proposing to deviate from a standard should explain their rationale and the pros and cons.
14.	Part C, 2.A.1.6.3.1 Page 101	Can an Inits WLAN module (integrated in COPpc) be used instead of the WLAN from RFCS because according to 2.A.1.6.3.1, the contractors VLU should handle all wireless data communication?	CLARIFICATION: The WLAN Device is an independent piece of equipment that is kept modular for upgrade ability. The use of the RFCS wireless device is required.

15.	Part C, 2.A.1.6.4.2.2 Page 108	Some of the buses had already cables for a cabling with regard to J2496. In those vehicles, are there J2496-HUBs already installed?	CLARIFICATION: No.
16.	Part C, 2.A.1.6.4.2.2 Page 108	In arctic busses, are there J2496 backbone cables going over the articulation?	CLARIFICATION: Yes.
17.	Part C, 2.A.1.6.4.2.2 Page 108	Do vehicles without J2496 cables need to be equipped with new cables and Hubs?	CLARIFICATION: No, but it may be proposed if considered necessary and effective. The Proposal should discuss the technical and scope issues related to meeting subsystem interface requirements.
18.	Part C, 2.A.1.6.4.2.2 Page 108	Are circuit diagrams (vehicle manufacture) of each vehicle type available for quotation?	CLARIFICATION: Most diagrams are available, depending on detail required. All available materials will be provided to the awarded Contractor.
19.	Part C, 2.A.1.6.4.2.2 Page 108	Are schematics of each vehicle type available which show the vehicle top view and side view (locations, facilities, measurement, dimensions)?	CLARIFICATION: Most schematics are available, depending on detail required. All available materials will be provided to the awarded Contractor.
Part C, SECTION 3.B Level 1 Requirements (Use Cases)			
20.	Part C, 2.B.1.3.2, Page 189	What is a Transit Base?	CLARIFICATION: Throughout the RFP the terms transit base and base have been used interchangeably (both capitalized and un-capitalized). ADD: to Appendix M, Glossary of Terms and Acronyms TRANSIT BASE: See BASE
21.	Part C, 2.B.3, Page 192	Actor APC: Is the wheelchair lift/ramp a separate door/entry or is it connected to the "normal" doors?	ADD: to the end of "Actor APC" [page 192] In all of the vehicles, except the Champion vans, the lift/ramp is in the front doorway. In the vans there is a separate door used for the lift.
22.	Part C, 2.B.3, Page 193	Actor Interior Sign: Where does the information for common destinations, transfers and landmarks come from?	CLARIFICATION: The data will come from TED (transit enterprise database). Operations staff manages and maintain the data to generate "Announcement Reference Guide" which are provided to Operators and identify the "major stops and transfer points" and provides landmark and transfer point details for those stops.
23.	Part C, 2.B.3, Page 193	Actor Lift/Ramp Sensor: Please explain the distinction between the different states (deployed, stowed, raised, lowered) of the lift/ramp sensor. Would be two states (raised or lowered) enough?	ADD: to the end of "Actor Lift/Ramp Sensor" [page 193] <ul style="list-style-type: none"> <u>Lift</u>: There are 3 states for a lift: stowed, raised, and lowered. <u>Stowed</u> means the lift is in its stored position; <u>raised</u> means the lift is raised to the floor level of the bus; and <u>lowered</u> means the lift is lowered to the ground. <u>Ramp</u>: For the ramp there are 2 states: stowed and deployed. <u>Stowed</u> means the ramp is in its stored position; <u>deployed</u> means the ramp is 'flipped' open to the ground.
24.	Part C, 2.B.4.1.1, 3.1 Manage login process 1)b)ii), RV1 Page 198	An invalid shall prevent someone to put the vehicle into gear? Is this a requirement?	CLARIFICATION: KCM is seeking methods for improving on-board security and disabling the vehicle is one of several ideas that have been discussed. The proposal should discuss recommended methods and how they can be implemented.

25.	Part C, 2.B.4.1.1, 3.1 Initiate On-Board System 1)a), RV1 Page 199	For which subsystems could it be useful to base the activation on time and service?	ADD: to the end of Initiate On-Board Systems, 1) a) [page 199] The following subsystems should be activated using the information available from the login: i) Destination signs ii) DDU iii) FTP iv) Interior sign(s): time and route v) TSP
26.	Part C, 2.B.4.1.1, 3.1 Initiate On-Board System 1)b), RV1 Page 199	What is a work assignment?	CLARIFICATION: This term is defined in Part C, Appendix M, Glossary of Terms and Acronyms.
27.	Part C, 2.B.4.1.1, 3.1 Log Events 1)a) + c), RV1 Page 200	Is there a difference between "startup events" and "system initiation events"?	CLARIFICATION: Startup events are those activities performed during the Start system step in 3.1 Basic Flow and system initiation events are the activities related to the Initiate On-Board Systems step.
28.	Part C, 2.B.4.1.1, 3.2.1 Manage login process 1)a)iv), RV1 Page 201	Please explain the business process to resolve problems with login.	CLARIFICATION: The business process will be situational and may include calling the Communications Center for instructions or having a supervisor dispatched to provide assistance. Whatever is required to get the vehicle back into service.
29.	Part C, 2.B.4.1.1, 3.2.1 Process Operator logout 3)b)i), RV1 Page 202	Is there a CCS in Level 1 to logout out the first assignment?	CLARIFICATION: No. In Level 1 the existing CAD/AVL system will be operating. That system does not have logout capabilities but will automatically accept a new login and override the existing one.
30.	Part C, 2.B.4.1.1, 3.2.2 Manage In-Service Login 3)b)i)2), RV1 Page 202	Please explain the combination of business and automated processes to manage coach change.	CLARIFICATION: This will be determined in design. There should be some actions that can be taken by a Coordinator to remotely login/logout and/or actions that may be taken by the Operator.
31.	Part C, 2.B.4.1.1, 5.2.2 Login Security 1)a)i), RV1 Page 205	Are there any requirements for the obstacles and barrier to operate a vehicle unauthorized?	CLARIFICATION: KCM is seeking methods for improving on-board security and disabling the vehicle is one of several ideas that have been discussed. The proposal should discuss recommended methods and how they can be implemented.
32.	Part C, 2.B.4.1.1, 5.3 Testing, RV1 Page 206	What are the requirement statements in the use case? Are they marked?	CLARIFICATION: See Part A, Section 1. Table T.4.2 Use Case Guidelines, the second page of the table describes a requirements statement and how it is marked.
33.	Part C, 2.B.4.1.2, 3.2.3 Process Configuration Comparison Failure 5), RV2 Page 214	Is there a list where the critical subsystems are specified?	CLARIFICATION: See Part C, 2.B.4.1.6 RV6-Manage Events, 3.1.4) b) ii) (a) A preliminary list of critical subsystems/equipment follows:
34.	Part C, 2.B.4.1.3 1.Brief Description, RV3 Page 218	Is there a special procedure required for terminating radio communication for level 1? Or is it sufficient to shut down the radio?	CLARIFICATION: There is not a procedure required for shutting down the radio in Level 1. The existing shut-down timer will be in use.

35.	Part C, 2.B.4.1.3 3.1 Basic Flow, RV3 Page 218	There are several logs mentioned. Is there a requirement for certain information to be in specific log files? What is the difference between the different log files?	CLARIFICATION: There will be separate data sets for RFCS, DVRS, AVM, and then event and maintenance logs can be one or many as long as the source system can be identified. This will be determined in design.
36.	Part C, 2.B.4.1.3 3.1 Basic Flow 2), RV3 Page 218	Shall the priority order based on the type of files?	CLARIFICATION: Yes.
37.	Part C, 2.B.4.1.3 3.1 Basic Flow 2)a), RV3 Page 218	Please explain/specify what is meant by "dynamically" in regard to the configuration of priorities.	CLARIFICATION: The OBS Administrator should be able to change download priorities and to implement the change immediately for downloads not yet initiated or set a date/time when the revised priorities will take affect.
38.	Part C, 2.B.4.1.3 3.1 Shut down OBS, RV3 Page 220	Which subsystems have to be shut down by the VLU?	CLARIFICATION: This will be determined in design. The shutdown of all OBS subsystems will need to either occur with the Shut down vehicle step or as part of the Shut down OBS process. ADD: to 2.B.4.1.3.3.1 Shut down OBS, 1) [page 220] a) Subsystems to be shut down by the VLU will include: DDU, DVRS, new 700 MHz radio, and WLAN. b) The final decision regarding which additional subsystems have to be shut down by the VLU will be made during the design phase of the contract. c) If the VLU is unable to complete an orderly shutdown process within the on-board time and power constraints, then the PLC will turn off power.
39.	Part C, 2.B.4.1.3 5.2 Technical Specifications 3)b), RV3 Page 222	Please explain how the system can be interrogated by a traffic signal.	CLARIFICATION: See 1.B.4.6. Transit Signal Priority (TSP). The tag is not interrogated directly by the traffic control system. The King County TSP system is comprised of a Tag Reader and Transit Priority Request Generator (TPRG). The Tag Reader reads the dynamic tag mounted on the bus. The entire content of the tag is formatted into a message forwarded to the TPRG. The proposer is not responsible for the roadside functions of the TSP system. The extent of the requirement is to provide the required data to the RF Tag.
40.	Part C, 2.B.4.1.4 1. Brief Description, RV4 Page 229	Is the "current" data set used only during transfer of data sets, as it will become either the "operating" or the "next" data set?	CLARIFICATION: Yes. The system will have a <u>operating</u> set and a <u>next data</u> set plus be able to have a set of <u>current data</u> that contains updates to the operating set and may or may not be part a full set of data.
41.	Part C, 2.B.4.1.4 1. Brief Description, RV4 Page 229	Why should the "previous" be stored on the vehicle? Is it needed to replace the "operating" data set in some cases? Who decides when to replace it? Is it kept just to save an additional loading of a new data set?	CLARIFICATION: The "previous" schedule data set is required due to the fact that our operations group may delay or alter plans and request a rollback of changes to the data.
42.	Part C, 2.B.4.1.4 RV4, 3. Flow of events RV4 Page 229	The landing pad is not mentioned. From the vehicles point of view Base server/landing pad are logically the same unit. Is this assumption right?	CLARIFICATION: Detail how this works: either as two functions on one piece of equipment, or two separate pieces of equipment.

43.	Part C, 2.B.4.1.4 RV4, 3. Process service RV4 Page 229	Are employee data stored in TED? Besides GIS shapefiles – are there any other data sources than TED?	CLARIFICATION: The TED data and structures contain the schedule, and employee data including GIS data in Tabular format. GIS Shape files are to be obtained from the GIS database.
44.	Part C, 2.B.4.1.4 3.1 Manage data updates from Base Server to the vehicle 5), RV4 Page 230	What is meant by "other identifier for version-control"? Is there a special requirement for this identifier?	CLARIFICATION: There must be a date or timestamp or vendor assigned control that may be verified to control versioning.
45.	Part C, 2.B.4.1.4 3.1 Process service 2)a), RV4 Page 230	The difference between "current" and "next" data set is not quite clear here. The "current" data set should be the one to become the "operating" data set, so the "next" data set can't be the one to become activated, couldn't it?	CLARIFICATION: The system will have a operating set and a next data set plus be able to have a set of current data that contains updates to the operating set and may or may not be part a full set of data.
46.	Part C, 2.B.4.1.4 5.1.1 Vehicle Data 5)b), RV4 Page 233	Please describe the "geographic service data".	CLARIFICATION: The "geographic service data" is to be whatever data is used by the OBS/CCS system design to provide the functionality described in 2.B.4.1.8. RV8-Monitor Route and Schedule Adherence.
47.	Part C, 2.B.4.1.4 5.1.1 Vehicle Data 5)e)+f), RV4 Page 233	Service sets shall include exterior and interior stop announcements. Does this mean that there is no announcement unit installed at the moment? Does the contractor have to provide such a unit?	CLARIFICATION: There is no annunciator system at this time and yes, it shall be provided as part of the OBS system. See Part C, 1.A.3.2.1. Level 1 Objectives, c. Add an annunciator system ...
48.	Part C, 2.B.4.1.5 3.1Basic Flow 5)h)iii) RV5 Page 238	What is the reason behind the given accuracy of the odometer?	CLARIFICATION: The current signpost based AVL accuracy is dependent on reliable, very accurate odometers with a means for correction. The proposed AVL solution should either comply with the stated accuracy requirement or should propose the odometer accuracy and correction mech- anisms needed to provide the overall AVL performance required in 2.B.4.1.7. Determine Vehicle Location.
49.	Part C, 2.B.4.1.5 3.1Basic Flow 5)h)iv) RV5 Page 238	Is there a description of the signpost components and their interfaces?	ADD: new subsection to the end of 1.B.4.3.1. MDU and Radio/AVL Replacement [page 25] 1.B.4.3.1.3 Signpost system The signpost system is made up of two parts, transmitters along the roadside and a signpost receiver and antenna mounted on-board each revenue vehicle: a. Signpost transmitter – a battery powered transmitter which is precisely located where vehicles pass during scheduled revenue operations that continuously broadcasts a 10 bit signpost ID number. There are 350 signpost transmitters are in use. (See Section 1.B.5.2 Legacy AVL System) b. Signpost receiver and antenna – the signpost receiver is a separate piece of self-contained hardware, which utilizes 12v power and has two ports. The input port is connected to the signpost antenna that is mounted on the vehicle roof. The output is connected to the MDU. The signpost receiver output to the MDU includes a 10 bit signpost ID number and a signal quality indi-cator. Currently, the MDU health status capability consists of detecting that a signpost receiver is there and it's powered on.

50.	Part C, 2.B.4.1.5 3.1 Basic Flow 5)k) RV5 Page 239	What is the interface to the security camera system for getting the health status?	CLARIFICATION: This may be determined in the design phase. At a minimum, the DVRS shall have an Ethernet interface to the VLU. See answer 11 above.
51.	Part C, 2.B.4.1.6 RV6 Page 245-255	Does the contractor have to utilize the event system described in this use case or is it allowed to use a different event system.	CLARIFICATION: See Part C, 1.A.4.1.1. Form, Fit and Function & 1.A.7.1. Nature and Intent of Required Specifications: Include a description of how the off-the-shelf solution will satisfy the requirements (how you do it); describe what modifications are possible and recommended (customizations); and also discuss what functionality is difficult or problematic and why.
52.	Part C, 2.B.4.1.6 3.1 Schedule subscription tables 4), RV6 Page 247	Does every subsystem already installed in the vehicle that the VLU communicates with have ability to acknowledge the communication? Or is this only a requirement for certain subsystems?	CLARIFICATION: It is understood that not all subsystems have the capability to acknowledge communication. However, to the extent possible, all communications shall be acknowledged or verified now or in the future. The proposed solution shall describe how reliable communications between subsystems will be provided. Also see Subsection C.2.B, RV5-3.1 Monitor System Health 4)- 6)
53.	Part C, 2.B.4.1.6 3.1 Assign priority to event 5)d), RV6 Page 248	Is it really desired that the public service announcement can be interrupted by every other event? This could lead to a strange announcement behavior.	CLARIFICATION: The priorities provided are preliminary and should provide a basis for discussion. Provide your recommended single solution that fulfills the RFP requirements.
54.	Part C, 2.B.4.1.6 3.1 Manage planned events 3)b), RV6 Page 248	Please explain how the passenger load should be used for TSP.	CLARIFICATION: See Part C, 2.B.4.1.16 RV16-Interface to TSP, 5.2 TSP Data Fields. Real-time passenger load is data that, when available, should be updated for transmission to the signal priority generator. Passenger load is one of the data fields that can be used by the TSP roadside equipment to determine if a bus meets the conditions for transit signal priority.
55.	Part C, 2.B.4.1.6 3.1 Manage unplanned events 3)b), RV6 Page 249	Please explain or give an example of the unknown conditions you are expecting.	CLARIFICATION: Unknown conditions are states, events or combinations of things that may come up but were not planned for in the design. The VLU should provide sufficient event logging to enable monitoring and troubleshooting of processes.
56.	Part C, 2.B.4.1.6 3.2 Manage Emergency Alarm (EA) process 3)a), RV6 Page 251	In level 1 the EA can only be send on the voice channel. The text mentions both level 1 and level 2.	CLARIFICATION: The current system sends an EA over both data and voice channels. Level 1 will not interface to the existing radio system nor has it associated EA messaging.
57.	Part C, 2.B.4.1.6 3.2 Manage Emergency Alarm (EA) process 3)a), RV6 Page 251	In level 1 the MDU is responsible for sending the EA over the voice channel and the VLU is responsible for all other tasks during the emergency, e.g. displaying the emergency, flash lights, etc.?	CLARIFICATION: Yes, this is a correct interpretation.
58.	Part C, 2.B.4.1.6 5.2.4 EA Acknowledgement, RV6 Page 253	What is a CSR? Please explain its use.	CLARIFICATION: CSR is defined in the Glossary as a Coordinator Service Record. The use case CC8-Manage Incidents describes the use of the CSR's.

59.	Part C, 2.B.4.1.6 5.2.4 EA "Fast Poll" Messages, RV6 Page 253	Are there any requirements for the interrupt timing mentioned under 1)a) and b)? How long shall the interrupts be?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
60.	Part C, 2.B.4.1.7, RV7 Page 256	Which of the subsystems need the published location and time?	CLARIFICATION: The following list includes, but is not limited to, subsystems that may need location (and time): <ul style="list-style-type: none"> • FTP • DVRS • Wireless TSP The final decision on which subsystems need location and time will be agreed upon during the design phase of the contract.
61.	Part C, 2.B.4.1.7 5.1 Position Data 1), RV7 Page 256	What is the TCIP-compliant format?	CLARIFICATION: The TCIP format is currently under development by the national standards committees and will be agreed to by the Contractor and KCM at design.
62.	Part C, 2.B.4.1.7 5.1 Position Data 3), RV7 Page 258	Why is it necessary to report the position in the WA State Plane NAD 83 projection?	CLARIFICATION: This conversion will allow KCM to import OBS-collected geographical information into our existing GIS. All of our GIS information is maintained in this projection and we intend to continue to do so.
63.	Part C, 2.B.4.1.7 5.1 Accuracy 1), RV7 Page 258	Is the manual way of verifying the location data part of the OBS? Is it only needed for the test phase?	CLARIFICATION: The manual process by which the OB AVL system accuracy is measured will be needed in the testing phases and may also be used after deployment to assess modifications to the system. The intent is to provide for human verification of the methods for collecting and reporting location used in determining accuracy.
64.	Part C, 2.B.4.1.7 5.2 Determine Location 1)a), RV7 Page 259	Which timing requirements are summed up as "in real time"?	CLARIFICATION: This requirement is also addressed in the performance section just above it in: Part C, 2.B.4.1.7 5.1, Accuracy 2) first bullet <ul style="list-style-type: none"> • Vehicle speed: discuss ... The location should be accurate to within 10 feet even while operating at normal speeds between 0 and 60 mph. The speed at which the vehicle is traveling usually affects the location accuracy. Location doesn't need to be reported every 10 feet but each time that it is published it must be accurate. The most stringent requirements for "real time" accuracy are for an emergency alarm (EA) and transit signal priority (TSP), where frequent, accurate updates are required.
65.	Part C, 2.B.4.1.7 5.3 Location Accuracy 1)g), RV7 Page 261	What is meant by "GPS with selective availability"?	CLARIFICATION: GPS selective availability was a government applied limitation to the accuracy of GPS data made available for public use. It is not currently in use.

66.	Part C, 2.B.4.1.7 8. Issues, RV7 Page 261	What are the FTA recommendations?	<p>CLARIFICATION:</p> <p>On July 1, 2002 the General Manager of KCM received a letter from the FTA encouraging transit agencies to “be prepared in the event of a severe GPS outage”. Steps that were recommended were to “conduct it’s own GPS risk assessment” and “deploy backup systems or procedures”.</p> <p>The implementation of OBS/CCS must include an agency plan to mitigate the degradation (selective availability) or loss of GPS and back up plans for service operations.</p>
67.	Part C, 2.B.4.1.8 3.1 Identify trigger points 3), RV8 Page 264 Part C, Appendix M, Glossary of Terms and Acronyms	Is the StopPointZone the bay of the stop or a large zone around the bay?	<p>CLARIFICATION:</p> <p>See Part C, Appendix M, Glossary of Terms and Acronyms</p> <p>A BUS STOP is represented geographically as a single point on the map by the scheduling system, normally located where the BUS STOP SIGN is installed. A ZONE is an attribute assigned to the stop to describe the area around the STOP where loading and unloading passengers is authorized. STOP POINT ZONE is an aggregate of the two existing data sets for determining whether events occur at a scheduled stop or not.</p> <p>ADD: new term and definition [page 264]</p> <p>BUS STOP SIGN: An ADA approved metal post with stop designator that may be alone or collocated with a bench, shelter, transit center or other facilities in the ZONE.</p>
68.	Part C, 2.B.4.1.8 3.1 Monitor schedule adherence 2)b)iii), RV8 Page 265	Please explain the concept behind "Estimated Time". Shouldn't it be the same time as the "Departure Time" for a stop?	<p>CLARIFICATION:</p> <p>The distinction between an ESTIMATED TIME POINT and a scheduled TIMEPOINT (see both in Appendix M, Glossary) is how they are interpreted in regards to schedule adherence (See C.2.B.4.1.8. RV8-Monitor Route and Schedule Adherence, 3.1 Monitor Schedule Adherence). Operators are instructed that early operation is authorized at estimated timepoints.</p>
69.	Part C, 2.B.4.1.8 3.1 Monitor schedule adherence 4), RV8 Page 265	What are the required formats and timeframes?	<p>CLARIFICATION:</p> <p>The formats and timeframes shall be agreed upon during the design phase and will satisfy the requirements described in the uses cases that are listed, e.g. the TSP Tag shall be provided with data updates as described in 2.B.4.1.16. RV16-Interface to Transit Signal Priority (TSP) Tag.</p>
70.	Part C, 2.B.4.1.8 5.1 Route Adherence 4), RV8 Page 266	What are the timing requirements for the off-route detection?	<p>CLARIFICATION:</p> <p>Proposers are requested to provide KCM with a proposed solution and system specifications to meet the stated requirements. Include the parameters for the conditions that must be met for the proposed system to determine that a vehicle is “off-route”. The functional requirements are: do not announce a stop incorrectly; provide accurate poll responses; and provide accurate signal priority requests as described in the associated use cases.</p>
71.	Part C, 2.B.4.1.8 5.2 Schedule adherence 2), RV8 Page 267	Please explain the conditions for the planned off-schedule situations.	<p>CLARIFICATION:</p> <p>When there is a service disruption, such as snow & ice, fire, flooding, etc. then there are pre-planned reroutes and route variations that may be used to manage the situation. Service Coordinators take whatever measures are required and appropriate.</p>

72.	Part C, 2.B.4.1.9 3.1 Report boardings and alightings using lift/ramp 1)d), RV9 Page 273	Is the sequence of lift/ramp activities different for boarding and alighting?	<p>ADD: to end of 1)d) [page 273]</p> <p>There are three lift positions:</p> <ul style="list-style-type: none"> a. <u>stowed</u> = not in use b. <u>raised</u> = positioned at the vehicle floor level c. <u>lowered</u> = positioned at sidewalk level <p><u>Lift</u>: the change in state from raised to lowered, is an alighting. The change in state is from lowered to raised, is a boarding.</p> <p>Note: for the <u>Ramp</u> it is not possible to determine from the ramp state whether a boarding or alighting has occurred.</p> <p>Propose passenger sensors to determine the Ramp sequence.</p>
73.	Part C, 2.B.4.1.9 3.2.2 Monitor activities at an unscheduled stop 1), RV9 Page 273	Is this zone/distance mentioned here present at all stops, so that you can speak of a large "bay"?	<p>CLARIFICATION:</p> <p>All active zones/stops will have an attribute for Stop_Distance which provides the length of the zone as agreed upon by KCM and the local jurisdiction. There is no standard size.</p> <p>Provide your recommended single solution that fulfills the RFP requirements..</p>
74.	Part C, 2.B.4.1.9 3.2.2 Monitor activities at an unscheduled stop 3), RV9 Page 273	What are "night" and "flag" stops?	<p>CLARIFICATION:</p> <p>Flag Stops and the Night Stop Program are described on page 633 of "The Book, King County Operations" which was distributed at the pre-proposal meeting.</p> <p>Night Stop: Between the hours of 9 p.m. and 5 a.m. the night stop program permits, "Operators, upon request, to let passengers off the bus anywhere along the route a stop is safe."</p> <p>Flag Stop: When service is scheduled to operate in areas where bus zones are not posted and where regular service does not operate, Operators are instructed to stop for passengers who flag them down provided that it is safe to stop.</p>
75.	Part C, 2.B.4.1.9 5.1 Passenger Counter Accuracy 2), RV9 Page 274	Why are there two accuracy requirements for the Stop-by-Stop test?	<p>CLARIFICATION:</p> <p>There are actually 3 accuracy requirements: 85% correct, 90% +/- 1, and 97% +/- 2. These allow some degree of error to occur and still be acceptable.</p>
76.	Part C, 2.B.4.1.9 5.2 Reasonable calculation results, RV9 Page 275	What are the normal limits for calculation?	<p>CLARIFICATION:</p> <p>These limits should be parameter driven and are a filter to verify that on-board subsystems can not be sent illogical results in real time. KCM should have the capability to change these easily.</p>
77.	Part C, 2.B.4.1.10.1 RV10 Page 279	In the table at the end of the paragraph, lower numbers mean a higher priority. Is this assumption correct ?	<p>CLARIFICATION:</p> <p>Yes.</p>
78.	Part C, 2.B.4.1.10 3.1 Automatic display "next stop" information 2), RV10 Page 281	When, or under which condition, should the next stop, time, current and service type be displayed? E.g. next stop and time is displayed alternately while driving while route and service type is displayed during boarding.	<p>CLARIFICATION:</p> <p>The specific sequence and timing of displays will be determined during design.</p> <p>Provide your recommended single solution that fulfills the RFP requirements.</p>

79.	Part C, 2.B.4.1.10 3.1 Automatic display "next stop" information 2)a)iii), RV10 Page 281	Sounding a tone each time and even twice in certain vehicles could be very annoying for the driver. One sound for the next stop should be enough to signal that a passenger wants to leave the bus. There should be a light at the dash board to show a stop request. Please elaborate on your intention.	<p>DELETE: 2.B.4.1.10 3.1 Automatic display "next stop" information 2)a)iii) and iv)</p> <p>iii) An audible tone will sound when a passenger requests a stop. The Stop Request tone shall be unique from any other automated tones or alarms so that it is readily identifiable by both passengers and the Operator.</p> <p>(1) The tone should sound each time a passenger pulls a cord or pushes a button.</p> <p>(2) Vehicles in the fleet that were purchased after 1996 will sound the stop requested tone twice for each time the signal strip under seats in the securement area is triggered.</p> <p>REPLACE: with</p> <p>iii) The Stop Request tone shall be unique from any other automated tones or alarms so that it is readily identifiable by both passengers and the Operator. An indicator light is already installed on the dash that lights when a stop request cord or button is activated.</p> <p>(1) The tone will sound the first time that a passenger pulls a cord or pushes a button after the vehicle has cycled the door(s) or opened then closed them.</p> <p>(2) ADA Stop Request: There are two types of stop request tones on vehicles in the fleet that were purchased after 1996. Pressing the signal strip located under the seats in the securement area triggers the stop requested tone twice. The dual-tone stop request signals the Operator that a passenger requiring assistance is requesting the next stop.</p> <p>iv) "Stop Requested" will be removed from the interior display and the stop request tone will reset and the dash light dims when the vehicle stops and a door are opened.</p>
80.	Part C, 2.B.4.1.10 3.1 Automatic display "next stop" information 2)c), RV10 Page 281	Where does the information about service type come from? Is it an attribute of each route?	<p>CLARIFICATION:</p> <p>Each route has a service type attribute, which is generated by Hastus and stored in TED.</p> <p>This data is stored in the TED database and will have to load into the OBS system. The stop is part of a pattern of service for a trip.</p>
81.	Part C, 2.B.4.1.10 3.1 Automatic display "next stop" information 2)d)iv), RV10 Page 281	I have noticed that a lot of information will be displayed on the interior sign. Please keep in mind that the final interior sign will likely be a display with only one line(because of height and width). Scrolling will have to be utilized to display the information. I doubt that a passenger watches the interior sign for more than a couple of seconds, so the information shown should be brief. Can you elaborate on what you request?	<p>CLARIFICATION:</p> <p>The specific sequence and timing of displays will be determined during design. The County understands that there are limits to how much information can effectively be displayed.</p> <p>Provide your recommended single solution that fulfills the RFP requirements.</p>

82.	Part C, 2.B.4.1.10 3.1 Automatic display "next stop" information 2)d)iv), RV10 Page 281	From where does the data for all the information come?	CLARIFICATION: See Answer 22. The data will come from TED based on data currently managed by Operations.
83.	Part C, 2.B.4.1.10 3.2.1 Coordinator makes PA announcement, RV10 Page 283	Is this a requirement for level 1, too?	CLARIFICATION: Yes.
84.	Part C, 2.B.4.1.10 3.2.2 Operator makes PA announcements 1), RV10 Page 283	Why does the PA have to be disabled when the operator is not logged in?	CLARIFICATION: When a mechanic or equipment service worker is on a vehicle for maintenance and a Coordinator announcement is broadcast over the PA, it startles them and disrupts their work. Provide your recommended single solution for disabling the PA when the vehicle is not in service.
85.	Part C, 2.B.4.1.10 5.3 PA and Announcement test cases 3)a), RV10 Page 290	What is the ADA focus group input?	CLARIFICATION: An ADA focus group was conducted in 2000 to collect input on annunciator system announcements and interior displays. This input will be provided to the awarded Contractor.
86.	Part C, 2.B.4.1.10 5.3 PA and Announcement test cases 4)c), RV10 Page 290	What are the criteria for the quality of sound?	CLARIFICATION: KCM staff does not have expertise in this area. The Proposal should express the specification of the proposed system performance using industry standards for clarity, quality, total harmonic distortion, etc. as applicable.
87.	Part C, 2.B.4.1.10 7.3 Annunciator data, RV10 Page 291	Is there more information about the set of transfer points?	CLARIFICATION: See Answer 22. The data will come from TED based on data currently managed by Operations.
88.	Part C, 2.B.4.1. RV11 Page 295-302	Does a central point where all wires form sensors arrive already exist ?	CLARIFICATION: No.
89.	Part C, 2.B.4.1.11 5.1.2 ECM Compatibility, RV11 Page 298	Is there a description of the different types of ECM's and their interfaces?	CLARIFICATION: Please contact the vehicle manufacturers for detailed information.
90.	Part C, 2.B.4.1.11 7. Assumption, RV11 Page 298	Is there a description/connection diagram for the OEM-cables and -busses that connect to the non-ECM I/O sensors?	CLARIFICATION: Depending on the specific request, KCM should have most of the diagrams and will provide them to the awarded Contractor.
91.	Part C, 2.B.4.1.11 8. Issues, RV11 Page 299	There is a number of wires given for each sensor. It is not clear what information is transmitted over these wires for each type. Please provide a more detailed list.	CLARIFICATION: The wires per sensor will be finalized in the design phase. Provide your recommended single solution that fulfills the RFP requirements.

92.	Part C, 2.B.4.1.11 8. Issues, RV11 Page 299	What is a "hinge fail"? Has it something to do with opening doors? Why is it so common?	CLARIFICATION: All 60' vehicles are articulated, which means that they have a "hinge". When the vehicle is traveling at slow speed the hinge enables it to bend around corners. When the vehicle speed reaches a threshold, the hinge is locked so as to make the vehicle frame rigid. The hinge control mechanism is an important safety feature. Hinge fail indicates a problem with the hinge on an articulated coach. A number of conditions can cause alarm, including wheel spin and excessive hinge angle. The hinge has nothing to do with the doors.
93.	Part C, 2.B.4.1.12 RV12	What type of connector will the DDU provide?	CLARIFICATION: Ethernet.
94.	Part C, 2.B.4.1.12 3.1 Manage displays for simultaneous events 4)b), RV12 Page 305	What is meant by "outgoing text messages" here? Does it mean that the driver/operator can enter free texts?	CLARIFICATION: The Operator (driver) will have a list of preprogrammed messages that they can send to the communications center. They will not be able to enter free text. Therefore, outgoing text messages will be a queue of the preprogrammed messages that were received.
95.	Part C, 2.B.4.1.12 3.1 Manage displays for simultaneous events 4)c), RV12 Page 305	How many messages shall be queued? Any?	CLARIFICATION: The number of messages will be finalized in the design phase. Provide your recommended single solution that fulfills the RFP requirements.
96.	Part C, 2.B.4.1.12 3.2 Manage DDU Equipment Failure 1), RV12 Page 305	What is the approved method?	CLARIFICATION: The approved method will be finalized in the design phase. Provide your recommended single solution that fulfills the RFP requirements.
97.	Part C, 2.B.4.1.13 RV13	What type of connector does the destination sign provide?	CLARIFICATION: Please contact the sign manufacturers for detailed information.
98.	Part C, 2.B.4.1.13 RV13	Are schematics or documentations available of sub-systems which have been installed after OEM?	CLARIFICATION: KCM will provide all available schematics and documentation for installed subsystems to the awarded Contractor.
99.	Part C, 2.B.4.1.13, 3.2.1 Manually override automated destination signs 1) RV13 Page 312	Shall the operator enter the code or choose from a list?	CLARIFICATION: The method of entering the code will be finalized in the design phase. Provide your recommended single solution that fulfills the RFP requirements.
100.	Part C, 2.B.4.1.13 5.1 Performance, RV13 Page 313	Why should the change of destination change the "route" identifier displayed on the interior sign? Is there a one on one relation between routes and destinations?	CLARIFICATION: There is not a one-to-one relationship between destination sign displays and route identifier. The destination sign may change 2-3 times before the route identifier changes. When the route identifier changes, then the destination sign will always change.
101.	Part C, 2.B.4.1.13 5.2 Update Destination Design Files, RV13 Page 314	Is it possible to load the destination design files onto each destination sign with other methods than PCMIA cards? Or is this limited to certain types of destination signs?	CLARIFICATION: We have provided sign OEM part numbers. The answers will need to be worked out with the sign manufacturers after Contract award.

102.	Part C, 2.B.4.1.14, RV14 Page 318	It is not quite clear which unit, VLU or FTP, is responsible for collecting and storing fares. Which unit sets the current fare? Which unit logs the appropriated events? Is there a more detailed description of the interface to the FTP?	CLARIFICATION: The FTP is responsible for collecting and storing fare transaction data. The VLU shall have the ability to automatically send fare set changes to the FTP. A more detailed description of the FTP will be sent as soon as it is made available.
103.	Part C, 2.B.4.1.14 5.2.1 Role of FTP in reading card status 2)a), RV14 Page 322	Is it on purpose that the passenger is informed that the card is invalid? What if he used a stolen card on purpose?	CLARIFICATION: The fare collection system design and displays are the responsibility of the RFCS project.
104.	Part C, 2.B.4.1.14 5.2.1 Role of FTP in reading card status 3), Page 323	If the card reader was used for reading only, why does the FTP have to store transaction information on the passenger's Smart Card?	ADD: to the end of 3) [page 323] The FTP may be called the smart card "reader" but it in fact both reads and writes onto the smart card to indicate usage and log transaction time for transfers.
105.	Part C, 2.B.4.1.15 RV15	What type of connector will the Fare Transaction Processor provide ?	CLARIFICATION: Ethernet.
106.	Part C, 2.B.4.1.15 RV15	What type of connectors does the DVRS system provide ?	CLARIFICATION: Please see Appendix D, Security Camera Interface.
107.	Part C, 2.B.4.1.15 RV15	Are schematics or documentations available of sub-systems which have been installed after OEM?	CLARIFICATION: KCM has some schematics and will provide them to the awarded Contractor.
108.	Part C, 2.B.4.1.15 5.2 Synchronize time, RV15 Page 329	How often is the time synchronized at the moment? How often should it be synchronized?	CLARIFICATION: Time is not currently synchronized between the MDU/Radio and the DVRS. Time on the MDU is synchronized over the radio every 30 minutes. For more detailed requirements see Section 2.B.1.4.7, 5.2 <i>Determine Location 2) Time.</i>
109.	Part C, 2.B.4.1.16 RV16	What type of connector does the TSP system provide?	CLARIFICATION: The RF Tag interface is a 4-wire serial, half-duplex, asynchronous TTL connection. The current installation is uses a D9 male connector, The Proposer could propose a different connector.
110.	Part C, 2.B.4.1.16 RV16	Are schematics or documentations available of sub-systems which have been installed after OEM?	CLARIFICATION: KCM has some schematics and will provide them to the awarded Contractor.
111.	Part C, 2.B.4.1.16 1. Brief Description, RV16 Page 333	Does the contractor have to provide the tag programmer?	CLARIFICATION: King County Transit owns sufficient static field tag programmers to handle new tag installations. On-board dynamic tag programming is the responsibility of the contractor. An existing tag interface unit is installed on the bus appropriate to the legacy systems, but does not meet the specifications of this RFP.
112.	Part C, 2.B.4.1.16 5.2 TSP Data Fields, RV16 Page 334	Is the Bus ID something that is already used in the vehicle(either stored in a non-volatile memory or hardwired)?	CLARIFICATION: The VID is currently stored in the MDU in non-volatile memory but it won't be available to the VLU. (See Section 1.B.4.3) ADD: to the end of Section 2.A.1.5.2. VLU Physical Requirements [page 92] The VLU shall have sufficient non-volatile memory to store configuration data including the VID. The VID will be entered into configuration during VLU installation.

113.	Part C, 2.B.4.1.16 5.2 TSP Data Fields, RV16 Page 335	What is understood by KCM to be the difference between "Run" and "Trip"?	<p>CLARIFICATION:</p> <p>The King County TSP system defines Route, Run and Trip consistent with the King County Transit scheduling system.</p> <p>Route/Run comprise the Block ID, which is a unique identifier of a block of work for a bus. Buses dispatched to the same Route generally do similar bodies of work and the Run number signifies a different physical bus to be assigned. Block Route DOES NOT indicate the service route number (the route number used by customers and shown in published schedules). The block route may give clues to the actual service route done during one of the trips, but it is not true indicator of the service route performed throughout the day.</p> <p>The trip is a subset of the block of work defining the route and pattern between terminals and correlate to either a revenue route or a deadhead trip.</p>
114.	Part C, 2.B.4.1.16 5.2 TSP Data Fields, RV16 Page 335	<p>Please explain the following TAG entries in more detail, as their meaning is not clear:</p> <p>SignRoute, SignExpress, Schedule, Override, Movement, RequestService and RequestLevel</p>	<p>ADD: Definitions to end of TSP Data Fields [page 355]</p> <p>See the answer above for an explanation of why the Route field does not necessarily reflect the service route.</p> <p>SignRoute – the current service/schedule route (referred to as ‘sign’ route because it should match what is being displayed on the destination sign.)</p> <p>SignExpress – flags if the current SignRoute is an ‘express’ route as defined in the schedule (referred to as ‘sign’ express because it should match what is being displayed on the destination sign.)</p> <p>Schedule – numerical field that could be used to correlate to a timetable stored in roadside equipment. When used, it will match the hastus schedule id number.</p> <p>Override – flag for a driver or system set self-exclusion from consideration for priority. This would be used in situations where it is known the bus is not running its scheduled service and should not be considered for priority, such as when leaving service for a trouble call.</p> <p>Movement – consistent with TCIP, allows for identifying a specific movement of signal phase, if known, for priority treatment.</p> <p>RequestService – consistent with TCIP, allows for identifying a specific signal control timing plan number, if known.</p> <p>RequestLevel – consistent with TCIP, if used by the signal control system, allows for prioritizing level of need for priority. This makes possible for more fully utilizing available priority by designating second and lower tier routes (for instance) to be granted priority if priority is available and higher tier routes are not present.</p> <p>CORRECTION:</p> <p>data element 12 should be ‘SecurityAlert’. The last ‘t’ was omitted in the RFP.</p>

115.	Part C, 2.B.4.1.16 5.2 TSP Data Fields, RV16 Page 335	Please explain where the data for the TAG entries come from.	CLARIFICATION: All data elements are available or can be calculated from on-board sensors and functions otherwise specified in the RFP. The Vehicle Logic Unit (VLU) is responsible for managing and directing this information. Provide your recommended single solution that fulfills the RFP requirements.
116.	Part C, 2.B.4.1.16 5.2 TSP Data Fields, RV16 Page 335	What is the format for the GPS-coordinates (Latitude and Longitude)?	CLARIFICATION: Decimal degrees, with enough resolution to communicate the GPS accuracy requirement.
117.	Part C, 2.B.4.1.16 5.2 TSP Data Fields, RV16 Page 335	Where does the information about speed come from?	CLARIFICATION: Acceptable sources would include, but are not limited to the speedometer and OB AVL system. Provide your recommended single solution that fulfills the RFP requirements.
118.	Part C, 2.B.4.2.2 BO2, 3.1 Basic flow Page 342-343	The description of the data flow between Base server and landing pad is missing	CLARIFICATION: The description of the data flow was left to the proposer to give them the option of whether the base server and landing pad is one server with two functions or two servers with some integration and data flow that may be in a design driven format.
119.	Part C, 2.B.4.2.3 BO3, 3.1 Basic flow Page 348	What are the underlying technologies of TED?	ADD: to 3.1 "process data transfer data enterprise 1) [page 348] TED is designed in Oracle Database 9i release 2. Data is updated using Oracle PLSQL via interfaces and GUI front-end applications.

Part C, SECTION 3.A. Level 2 Technical Requirements

120.	Part C, 3.A.3.1.1 Page 372	CSR. Please give a full list of the service disruptions and incidents. Should the agencies responses of the previous days be visible? If so are they only visible to dispatchers or to Coordinators or both?	CLARIFICATION: The service disruptions and incidents referred to in this section relate to any possible event in the KCM service environment that may come to the attention of the communications coordinators and require a response. The process is described in Part C, Section 3.B Level 2 Functional Requirements, CC8-Manage Incidents. CSR historical data should be visible to any users, including coordinators and other KCM staff with access to the CSR Web reports.
121.	Part C, 3.A.3.1.1 (b) Page 372	What is the "My Bus" and "Bus View software" application and how is a real-time interface possible? Is an interface based on HTTP and XML acceptable? Section 3.A.6.2.6 (b) lists XML but not HTTP.	CLARIFICATION: See Part C, Subsection 3.A.4.2 Communications Center System Replacement Tasks, and Subsection 3.A. 5.2. CCS Upgrade Tasks for more details on the Contractor's responsibilities related to My Bus and Bus View. More information related to My Bus and Bus View will be provided to the Contractor in the design phase.
122.	Part C, 3.A.3.1.2 (b) Page 373	Please specify the term "route" adherence.	CLARIFICATION: See Part C, Subsection 2.B, RV8-Monitor Route and Schedule Adherence for more information and a detailed description of this process and requirements.
123.	Part C, 3.A.3.1.3 (b) Page 373	Vehicle location playback: Should vehicle location playback be available at any time at any of the 11 dispatcher workstations?	CLARIFICATION: Yes.
124.	Part C, 3.A.6.2.5 (b) Page 373	What type of routine maintenance task should be possible with the on-line database?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.

125.	Part C, 3.A.6.2.5 Page 393	What is the CLI used for?	CLARIFICATION: CLI or Command Line Interface provides CCS system administrators with access to the database software.
126.	Part C, 3.A.6.2.9 Page 395	What interface can be assumed for the Transit Radio System workstation that will be provided by the Transit Radio System project.	CLARIFICATION: As the Transit Radio System (TRS) Request for Proposals has not yet been issued and the contract awarded, this information is not available.
127.	Part C, 3.A.6.6.1.4 Page 401	Is it acceptable for the CCS to use an internet based time service based on NTP (network timing protocol)?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
Part C, SECTION 3.B Level 2 Requirements (Use Cases)			
128.	Part C, CC1-Log in CCS User 3.1 Basic Flow (1) Page 461	Is a separate login on application level acceptable or should the login be tied into the operating system login? What type of user instructions are you expecting?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
129.	Part C, CC1-Log in CCS User 3.1 Basic Flow (2) b (i) Page 461	Where do the coordinators scheduled assignments to a strategy come from? Should a personal planning system be part of the CCS?	CLARIFICATION: The functional requirements for this process are described in CC13- Manage Configuration.
130.	Part C, CC1-Log in CCS User 3.1 Basic Flow (2) b (i) Page 461	Is the coordinator assignment number a temporary assigned number for the duration of the session?	CLARIFICATION: The functional requirements for this process are described in CC13- Manage Configuration.
131.	Part C, CC2-Log in Revenue Vehicle Basic Flow 3.1 (1) d Page 464	The Block ID consists of Route number and Run number. The Glossary though explains a Block to define the operating schedule from "pull out" to "pull in". If then a Block ID consists of route number and run number that would mean you have a vehicle assigned to a specific route for the entire day, is this the case?	CLARIFICATION: The schedule associated with the vehicle's assigned Block ID may require the vehicle to operate trips on the same or different service routes. See Appendix M, Glossary of Terms and Acronyms.
132.	Part C, CC2-Log in Revenue Vehicle 3.2.2 (1) b Page 465	Do you intend to use specific block IDs for the cases (i) through (v) or do you want to specifically be able to mark a block as e.g. "Road Test, "Training" etc.? If so will this information come from the TED?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
133.	Part C, CC2-Log in Revenue Vehicle 3.2.4 (3) Page 466	With "Operating Base" you mean the base where the vehicles return to after finishing their block? The word is not explained in the Glossary. Do all vehicles return to the same operating base where they had started from?	CLARIFICATION: In this section of the use case CC2-Log in Revenue Vehicle, "operating base" refers to the "base" assigned to operate the block. Appendix M. Glossary of Terms and Acronyms provides a definition of "base." A vehicle may or may not return to the same base were it started from.
134.	Part C, CC3- Manage Revenue vehicles Polling 3.1 section "Maintaining Polling" subsection (4) b Page 471	How is your "service day" defined?	CLARIFICATION: This section of the use case CC3-Manage Revenue Vehicle Polling describes a mechanism for reporting missed events to the CCS if the CCS or TRS has been unavailable. Missed event reporting via the polling function is not required beyond the "current service day," when the vehicle's poll data are no longer being transmitted between the OBS and CCS.

135.	Part C, CC3- Manage Revenue vehicles Polling 3.1 section "Fast Poll Vehicle" (1) Page 471	How does the coordinator indicate a "stop tracking" of a vehicle?	CLARIFICATION: See use case CC4-Monitor Revenue Vehicles, step "Disable Tracking for Selected Vehicle." The coordinator either selects the Disable Tracking" function or selects another vehicle for tracking.
136.	Part C, CC3- Manage Revenue vehicles Polling 3.1 section "Log Polling Data" (3) Page 472	Please provide the data requirements for the My Bus/ Bus View applications.	CLARIFICATION: More information related to My Bus and Bus View will be provided to the Contractor in the design phase.
137.	Part C, CC3- Manage Revenue vehicles Polling 5.1 Poll Message (1) Page 472	Is it acceptable to create a "unique message identifier" when receiving the message in the central system? A date and time stamp could identify a unique message.	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
138.	Part C, CC4- Monitor Revenue vehicles 3.1 (2b) Display Transit Service Map (iv) Page 477	Please explain in more details what signposts are used for and what your intent is on using them in a map. Do you expect to interact with these in any way?	CLARIFICATION: If signposts are utilized in the next system, the AVL map would display the signpost locations, as in the present system. (Section reference for vendors using signposts to supplement GPS.)
139.	Part C, CC4- Monitor Revenue vehicles 3.1 Select revenue vehicles for display (1c) Page 478	Where do the definition of "parent routes" and "route clusters" come from? Please explain the term "parent routes" this is not listed in the glossary.	CLARIFICATION: The use case step referenced in the question notes that parent routes and route clusters are the same, and provides an example.
140.	Part C, CC4- Monitor Revenue vehicles 3.1 Select revenue vehicles for display (1d) Page 478	Please explain the term "local tip". What other trip types does KCM distinguish?	CLARIFICATION: A "local trip" is a vehicle operating a trip on a "local route" as defined in Appendix M, Glossary of Terms and Acronyms. "Express trip" is the other type of trip described in this requirement. An "express trip" is a vehicle operating the trip on a "express route" as defined in the Glossary.
141.	Part C, CC4- Monitor Revenue vehicles 3.1 Display revenue vehicle status (1 a- d) Page 478	Do you accept the status of a vehicle to be visible upon selection (e.g. pop-up window on, double click)? Is a color scheme acceptable to identify different status of the vehicles?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
142.	Part C, CC4- Monitor Revenue vehicles 3.1 Display revenue vehicle status (5) Page 479	If the user selects multiple vehicles this selection is persistent until a different selection is chosen. What do you expect the map display to do if a selected vehicle moves outside the visible map area?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
143.	Part C, CC4- Monitor Revenue vehicles 5.4 Usability, "Map Utilities" (2) Page 482	The measured distance between two or more user-selected points is the distance "as the crow flies" and not a routed distance, correct?	CLARIFICATION: Yes.
144.	Part C, CC4- Monitor Revenue vehicles 5.4 Usability, "Map Utilities" (4) Page 482	For the copy tools we assume that copying the map view to the clipboard will be in a bitmap type of format.	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.

145.	Part C, CC4- Monitor Revenue vehicles 5.4 Usability, "Vehicle specific Utilities" (5) Page 482	Please explain the term "block train"	CLARIFICATION: The Block Train report is one of the schedule data reports described in CC7-Manage Transit Schedule & Geographic Service Data.
146.	Part C, CC5- Initiate Communications to Revenue vehicle. 3.2.2 Select PA broadcast Page 488	Do you expect the audio announcement to be stored in the vehicle and be triggered by the coordinators, or should the announcement be stored in the central side and announced via the radio system? Do you expect a mix for the instantly recorded announcements?	CLARIFICATION: Provide your recommended single solution that fulfills the RFP requirements.
147.	Part C, CC5- Initiate Communications to Revenue vehicle. 3.2.4 Support tunnel radio communications (3) Page 489	What do you mean by "Joint Tunnel Operations" with Sound Transit light rail"? Please explain how this functions?	CLARIFICATION: Please review Part C, Section 1.C.6.2 Joint Tunnel Operations.
148.	Part C, CC6 – Respond to Revenue Vehicle Communications 3.2.1. Monitor Security Microphone (2) Page 497	Do you intend to control the volume of the transmission from the dispatch computer or the radio devices?	CLARIFICATION: The "Monitor Security Microphone" step of this use case states "Coordinators will have the option of monitoring the security microphone audio transmissions by adjusting the transmission volume at their workstations," meaning the users at the Communications Center will be able to adjust the volume of the transmissions they receive.
149.	Part C, 3.B.4.2.7 CC7, 5.1 Display the Base arrival Page 507	Where do the operator/vehicle nr – block assignments come from?	CLARIFICATION: The Base Arrival Report provides schedule information related to the block, which is provided to the CCS for the process described in CC7-Manage Transit Service & Geographic Data. The report includes the operator ID and VID assigned to the block that day, which are provided to the CCS through the log in process described in CC2- Log in Revenue Vehicle.
150.	Part C, 3.B.4.2.7 CC7, 5.1 Block Train report 3f Page 508	Assuming that an operator's relief is mentioned: are operator duties part of the data flow between TED and the CC server?	CLARIFICATION: The schedule data provided to the CCS by TED includes the data for the Block Train Report, including road relief data.
151.	Part C, CC8 – Manage Incidents 5.1 Technical Specifications Automatically enter known data Page 517	The CSR number is assigned by the system. Are there any guidelines to follow for assigning a number?	CLARIFICATION: This information will be provided to the Contractor in the design phase of the Project.
152.	Part C, CC13 – Manage Configuration 5.1.2 Ensure self- sufficiency in CCS design (1)+(2) Page 562	Will KCM or the contractor provide the network hardware?	CLARIFICATION: The Contractor will provide CCS network and conductivity requirements. See Part C, Subsection 3.A.7.3.5 Physical Installation Documentation.

153.	general question to CCS	11 dispatcher workstations should be connected to the system, are any of these workstations connected through a low bandwidth connection less than 100Mbit/s TCP/IP? If so please let us know the bandwidth to these workstations.	CLARIFICATION: All workstations in the new Communications Center will have 100 Mbit/s TCP/IP.
154.	general question to use cases:	We understand that the system will be measured by user satisfaction ratings. These ratings though will be different for every individual, how does KCM intend to decide if the system provided is acceptable.	CLARIFICATION: CCS testing requirements are described in Part C. Subsection 3.A.7.5 Testing. Proposers should describe their recommended approach to CCS testing, including Usability testing.
155.	user satisfaction rating	KCM intends to compare the current system with the new system, what are the current individual ratings on your system?	CLARIFICATION: This information is not currently available.

**Announcement Reference Guide
ROUTE 54 NORTHBOUND**

Major	Intersection	Landmarks
*SW 98 St		14 Av SW
15 Av SW	SW Roxbury St	
26 Av SW	SW Barton St	Westwood Village
SW Roxbury St	27 Av SW	
	35 Av SW	
Fauntleroy Wy SW	Fauntleroy Ferry Terminal	
California Av SW	Fauntleroy Wy SW	Morgan Junction
SW Alaska St	California Av SW	Alaska Junction
35 Av SW	SW Avalon Wy	
SW Avalon Wy	SW Charlestown St	Last Stop: West Seattle
1 Av	Union St	Seattle Art Museum Pike Place Market Benaroya Hall
		Continue as Rt 5
3 Av	Pine St	Westlake Center Monorail Westlake Station
	Virginia St	DSHS
Battery St	4 Av	
Bell St	6 Av	

***Not required to be announced by operator**

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California Av SW	Fauntleroy Wy SW	Morgan Junction
SW Alaska St	California Av SW	Alaska Junction
35 Av SW	SW Avalon Wy	
SW Avalon Wy	SW Charlestown St	Last Stop: West Seattle
1 Av	Union St	Seattle Art Museum Pike Place Market Benaroya Hall
		Continue as Rt 5
3 Av	Pine St	Westlake Center Monorail Westlake Station
	Virginia St	DSHS
Battery St	4 Av	
Bell St	6 Av	

***Not required to be announced by operator**

**Announcement Reference Guide
ROUTE 54 SOUTHBOUND**

Major	Intersection	Landmarks
*6 Av	Bell St	
5 Av	Virginia St	
	Pine St	Westlake Center Monorail Westlake Station
	Pike St	
Union St	4 Av	Benaroya Hall Department of Licensing Post Office
1 Av	Union St	Seattle Art Museum Pike Place Market
	Seneca St	
	Marion St	Federal Building Ferry Terminal
		Last Stop RFA
		Last Stop: Downtown
35 Av SW	SW Avalon Wy	
	SW Alaska St	
California Av SW	SW Alaska St	Alaska Junction
	Fauntleroy Wy SW	Morgan Junction
Fauntleroy Wy SW		Fauntleroy Ferry Terminal
45 Av SW	SW Wildwood Pl	
26 Av SW	SW Barton St	Westwood Village
SW Roxbury St	15 Av SW	
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ROUTE 54 SOUTHBOUND**

Major	Intersection	Landmarks
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5 Av	Virginia St	
	Pine St	Westlake Center Monorail Westlake Station
	Pike St	
Union St	4 Av	Benaroya Hall Department of Licensing Post Office
1 Av	Union St	Seattle Art Museum Pike Place Market
	Seneca St	
	Marion St	Federal Building Ferry Terminal
		Last Stop RFA
		Last Stop: Downtown
35 Av SW	SW Avalon Wy	
	SW Alaska St	
California Av SW	SW Alaska St	Alaska Junction
	Fauntleroy Wy SW	Morgan Junction
Fauntleroy Wy SW		Fauntleroy Ferry Terminal
45 Av SW	SW Wildwood Pl	
26 Av SW	SW Barton St	Westwood Village
SW Roxbury St	15 Av SW	
*Not required to be announced by operator		